

5.1 Review Process for Highly Migratory Species Stock Assessments

Steven Teo Fisheries Resources Division Southwest Fisheries Science Center

July 29, 2014

Theme III

Does the Center, in conjunction with other entities, have an adequate peer review process?

- a. What is the relative role of Center and Council's SSC in organizing and conducting peer review?
- b. Are TORs for assessment reviews clear and well-defined prior to assessment? Are they focused on key issues needing review and key, answerable questions? Are they appropriately broad?
- c. Are major data collection programs and modeling methods reviewed separately from the final assessment review?
- d. Are there clear protocols for considering and including input from scientists not on the assessment team?
- e. Does the review process achieve an appropriate balance between transparency, thoroughness, and throughput?



Outline

- HMS fisheries management in the Pacific
 - International stocks
 - Depends on jurisdiction and organization
 - Technical review & review for management purposes
- Examples
 - Pacific bluefin tuna ("Northern stocks")
 - North Pacific blue shark ("non-Northern stocks")
- Strengths, Challenges, and Strategies



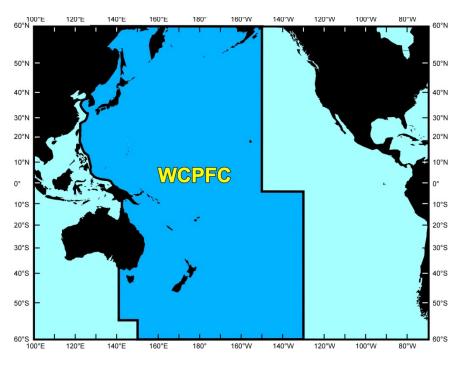
HMS Fisheries and their Management

- HMS range throughout vast areas of the Pacific Ocean
- There is no single, pan-Pacific organization that manages all HMS throughout their ranges
- Western and Central Pacific Fisheries Commission
- Inter-American Tropical Tuna Commission



Western and Central Pacific Fisheries Commission (WCPFC)



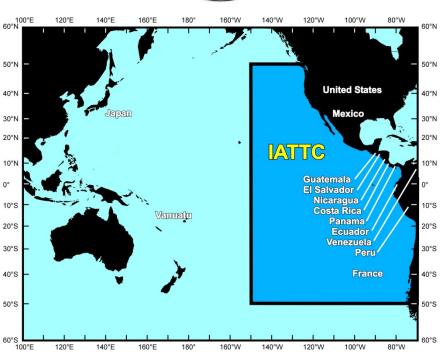


- SPC is primary science provider
- ISC science provider for "Northern" stocks
- Scientific Committee (SC)
 reviews stock assessments of
 non-"Northern" stocks. SSC
 equivalent
- Technical peer review process still being developed
- PIFSC have sent SPC assessments to CIE for desktop review



Inter-American Tropical Tuna Commission (IATTC)

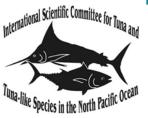


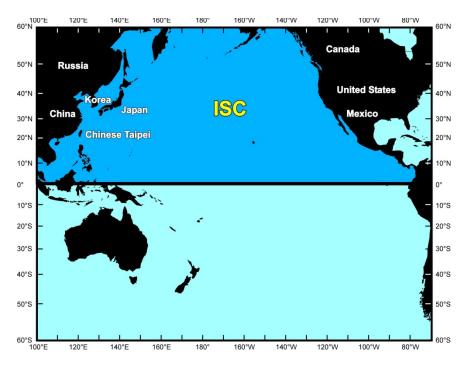


- IATTC staff scientists
- Collaborates with ISC on temperate stocks
- Scientific Advisory Committee (SAC) reviews stock assessments. SSC equivalent
- Technical peer review process established. Advisory, nonbinding review



International Scientific Committee for Tuna and Tuna-like Species (ISC)





- Primary science provider for Northern Committee of WCPFC
- IATTC & SPC collaborates on working groups (WG)
- "Northern" stocks Pacific bluefin, albacore & swordfish
- Temperate sharks & billfish
- WGs are most important "review" bodies
- ISC Plenary reviews and endorses WG products
- ISC technical peer review process still being developed
- SWFSC & PIFSC have sent assessments to CIE for desktop review



SC Terms of Reference

- Review assessments from SPC for tropical stocks and assessments from ISC for non-"Northern" stocks
- Develop conservation and management advice for WCPFC for non-"Northern" stocks
- Forward assessment results and management advice to WCPFC



ISC Plenary Terms of Reference

- Review and endorse assessments from WGs
- Develop conservation and management advice
- Forward assessment results and management advice to NC (international managers) for "Northern" stocks
- Forward assessment results to SC for non-"Northern" stocks

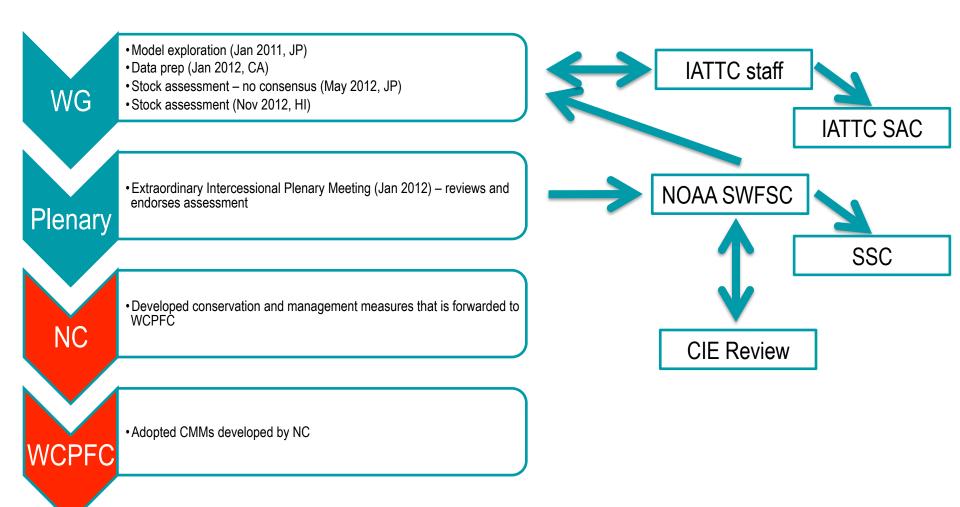


CIE Terms of Reference

- US domestic process
- Not a thumbs-up / thumbs down review in terms of suitability for management
- Not a review of assessment data
- Given available data, review assessment methods and models (e.g., configuration, assumptions, input parameters, sensitivities, uncertainty)
- Recommend improvements and future research

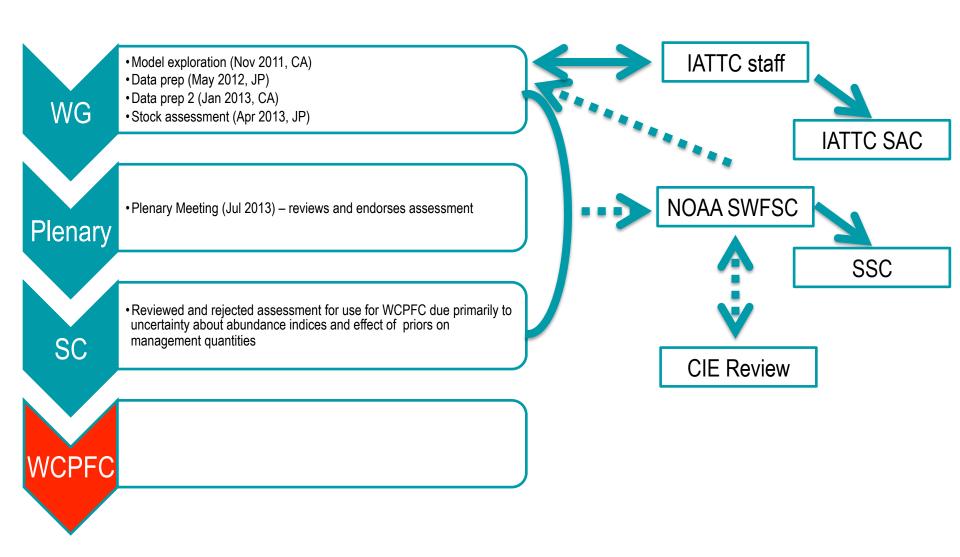


Pacific bluefin tuna – "Northern" stock





North Pacific blue shark – non-Northern





Strengths

 Collaborative and iterative WG process leads to a technical review of sorts but is non-independent



Challenges

- HMS stocks are mostly international so awkward to use or compare with US domestic review process
- Funding for technical reviews are highly limited
- Face to face reviews are preferable but difficult logistically so CIE desktop reviews used
- Technical review process, if developed, are advisory rather than thumbs up or thumbs down
- Reviews for management suitability are performed by mostly same assessment scientists or non-technical bodies



Strategies

- Development and funding for technical review process for ISC and other RFMO/science providers
- Invite outside assessment experts into WG stock assessment process (e.g., 2014 albacore assessment)
- Training for international scientists in modern statistical stock assessment methods (e.g., Mexico)
- Work to better separate science from policy in the assessment process
- Access to international raw data used for assessments



